

CLAIMS (Amended)

[Received on August 24, 2004 by International Bureau: originally filed claim 1 was amended, originally filed claim 2 was withdrawn, and other claims were not amended (Page 1)]

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1. An electrodeposited copper foil with low roughness surface, wherein surface roughness (Rz) is 2.0 μm or less, surface uniformity is provided with degree of mirror gloss of the roughness surface, measured by Gs (85°) in accordance with JIS (Japanese Industrial Standard) Z 8741 is 100
10 or more and low roughness without uneven surge, and a percent elongation is 10.0% or higher at 180°C.

2. (Deleted)

3. A process for producing an electrodeposited copper foil with low roughness surface having surface roughness (Rz) of 2.0 μm or less, surface uniformity provided with low roughness without uneven surge and exhibiting a percent elongation of 10.0% or higher at 180°C, comprising passing a direct current between an insoluble anode consisting of a titanium plate coated with a Platinum Group element or oxide thereof and a titanium drum as a cathode counter to the anode in an electrolyte of an aqueous
15 solution of sulfuric acid/copper sulfate, wherein said electrolyte contains an oxyethylene surfactant, a polyethylenimine or its derivative, a sulfonate of active organosulfur compound and chloride ions.
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4. The process for producing an electrodeposited copper foil with low roughness surface according to claim 3, wherein degree of mirror gloss of
25 the roughness surface, measured by Gs (85°) in accordance with JIS Z 8741

is 100 or more in the electrodeposited copper foil with low roughness surface.

5. The process for producing an electrodeposited copper foil with low roughness surface according to claim 3 or 4, wherein concentration of oxyethylene surfactant in the electrolyte is in the range of 10 to 200 mg/L.

5 6. The process for producing an electrodeposited copper foil with low roughness surface according to claim 3 or 4, wherein concentration of polyethyleneimine or its derivative in the electrolyte is in the range of 0.5 to 30.0 mg/L.

STATEMENT BASED ON ARTICLE 19(1) OF TREATY

Amended claim 1 clarifies that an electrodeposited copper foil with low roughness surface according to originally filed unamended claim 1 has a
5 roughness surface with a degree of mirror gloss Gz (85°) measured in accordance with JIS (Japanese Industrial Standard) Z 8741 of 100 or more.

Any reference lacks description of an electrodeposited copper foil having a roughness surface having a degree of mirror gloss Gz (85°) measured in accordance with JIS (Japanese Industrial Standard) Z 8741 of
10 100 or more.

The electrodeposited copper foil with low roughness surface according to amended claim 1 of the present invention is concretely disclosed in Page 11, line 10 to Page 12, line 19 and in Fig. 1.